

BOSTON EDISON COMPANY
CAMBRIDGE ELECTRIC LIGHT COMPANY
COMMONWEALTH ELECTRIC COMPANY
NSTAR GAS COMPANY

Direct Testimony of Geoffrey O. Lubbock and Christine L. Vaughan

Exhibit NSTAR-GOL/CLV-1

D.T.E. 05-85

Table of Contents

I.	INTRODUCTION	1
II.	PURPOSE OF THIS TESTIMONY	4
III.	REVENUE REQUIREMENT METHOD.....	5
IV.	OPERATIONS AND MAINTENANCE EXPENSE.....	15
V.	DEPRECIATION AND AMORTIZATION EXPENSE	27
VI.	TAXES OTHER THAN INCOME TAXES	31
VII.	INCOME TAX ALLOWANCE	32
VIII.	RATE BASE AND RETURN ON RATE BASE	35
IX.	OPERATING REVENUES	39
X.	CAPITAL STRUCTURE	41
XI.	TRANSMISSION ALLOCATIONS.....	43
XII.	STORM FUND	44

**BOSTON EDISON COMPANY
CAMBRIDGE ELECTRIC LIGHT COMPANY
COMMONWEALTH ELECTRIC COMPANY
NSTAR GAS COMPANY**

Direct Testimony of Geoffrey O. Lubbock and Christine L. Vaughan

Exhibit NSTAR-GOL/CLV-1

D.T.E. 05-85

1 **I. INTRODUCTION**

2 **Q. Please state your names and business address.**

3 A. Our names are Geoffrey O. Lubbock and Christine L. Vaughan. Our business
4 address is One NSTAR Way, Westwood, Massachusetts, 02090.

5 **Q. Mr. Lubbock, by whom are you employed and in what capacity?**

6 A. I am employed by NSTAR Electric & Gas Corporation (“NSTAR E&G”) as Vice
7 President, Financial Strategic Planning & Policy. In my current position, I am
8 responsible for a broad range of regulatory and financial planning responsibilities
9 for NSTAR’s regulated distribution companies including Boston Edison
10 Company (“Boston Edison”), Cambridge Electric Light Company (“Cambridge”),
11 Commonwealth Electric Company (“Commonwealth”), (collectively, “NSTAR
12 Electric”) and NSTAR Gas Company (“NSTAR Gas”) (together with NSTAR
13 Electric, the “Companies”). I am also responsible for these same responsibilities
14 for the Federal Energy Regulatory Commission (“FERC”) regulated parts of these
15 businesses as well as for Canal Electric Company, which is wholly FERC
16 regulated.

17 **Q. Please describe your education and professional background.**

18 A. I have a Bachelor and Master of Arts from Cambridge University and a Masters
19 Degree in Business from the London Graduate School of Business. I joined

1 Boston Edison in 1988 as Manager of Revenue Requirements. In 1991, I became
2 Manager of Revenue Requirements and Financial Planning. In 1993, I became
3 Manager of Energy Research Planning and Forecasting. In 1995, I became
4 Manager of Corporate Service Commitments and in 1997, I became Director of
5 Generation Divestiture. I assumed my current position in July 1998. Prior to
6 Boston Edison, I was with the Cabot Corporation, Exxon Corporation and
7 Citibank.

8 **Q. Have you previously testified in any formal hearings before regulatory**
9 **bodies?**

10 A. Yes, on a number of occasions. I testified before the Department of
11 Telecommunications and Energy (the “Department”) on behalf of Boston Edison
12 in connection with the approval of its sale of the Pilgrim Nuclear Power Station to
13 Entergy Nuclear Generation Company in D.T.E. 98-119. I have also testified
14 before the Department to support Boston Edison’s Restructuring Settlement
15 Agreement in D.P.U./D.T.E. 96-23 and in connection with approval of the
16 divestiture of Boston Edison’s fossil generation assets in D.T.E. 97-113. More
17 recently, I testified in NSTAR Electric’s buyouts and buydowns of its power
18 contracts with Pittsfield Generating Company, LLP, D.T.E. 04-60;
19 MASSPOWER, D.T.E. 04-61; Ocean State Power, D.T.E. 04-68, Dartmouth
20 Power Associates Limited Partnership, D.T.E. 04-78; and Northeast Energy
21 Associates, D.T.E. 04-85, as well as an attendant securitization, D.T.E. 04-70.

1 **Q. Ms. Vaughan, by whom are you employed and in what capacity?**

2 A. I am Manager of Regulatory Requirements for the regulated operating companies
3 of NSTAR. In this capacity, I am responsible for all regulatory filings concerning
4 the financial requirements of Boston Edison, Commonwealth, Cambridge and
5 NSTAR Gas.

6 **Q. Please summarize your educational background.**

7 A. I graduated from McGill University in Montreal, Canada in 1990 with a Bachelor
8 of Engineering Degree and from Yale University in 1998 with a Masters Degree
9 in Business Administration. Additionally, I have earned the right to use the
10 Chartered Financial Analyst designation.

11 **Q. Please summarize your business experience.**

12 A. Before working at NSTAR, I worked as a management consultant for five years at
13 Arthur D. Little and at Charles River Associates, a company that purchased a
14 portion of Arthur D. Little. In this capacity, I assisted clients with financial issues
15 such as acquisition support and asset privatization. I also helped clients develop
16 long-range strategic plans and assisted them with market analysis. Prior to my
17 consulting experience and my MBA, I worked for six years at DuPont and BASF
18 as a development engineer.

19 **Q. Please describe your present responsibilities.**

20 A. As Manager of Regulatory Requirements, I am responsible for directing the
21 preparation of financial data required for rate case filings and serve as revenue

1 requirement witness. My responsibilities currently include, among a variety of
2 other financial services, the reconciliation of NSTAR Electric's transition and
3 transmission charges and the Companies' cost of service, which forms the basis of
4 our testimony today.

5 **Q. Have you previously testified before any regulatory body?**

6 A. Yes. I offered testimony at the FERC in Docket No. ER05-69-000 on behalf of
7 Boston Edison relating to the modification of the Company's FERC Tariff No. 8,
8 chiefly to permit the inclusion of 50 percent of construction work in progress in
9 rate base. I also testified before the Department in D.T.E. 04-65 regarding the
10 methodology for determining the value of Cambridge's streetlights. I am also
11 currently sponsoring testimony in D.T.E. 04-114, the reconciliation filing of
12 Cambridge and Commonwealth, D.T.E. 04-113, the reconciliation filing for
13 Boston Edison, and for NSTAR's Pension Adjustment Factor in D.T.E. 04-118.

14 **II. PURPOSE OF THIS TESTIMONY**

15 **Q. What is the purpose of your testimony?**

16 A. This testimony is offered in support of the calculation of the revenue requirement
17 and revenue deficiency of each of NSTAR's three electric distribution
18 subsidiaries (Boston Edison, Commonwealth, Cambridge) and NSTAR Gas. In a
19 filing to be made later this year, the merger of the three electric companies will be
20 proposed. This companion filing will merge Cambridge, Commonwealth and
21 Canal Electric and Boston Edison and provide for additional capitalization of the

1 merged company to be renamed NSTAR Electric. Since the format for each set
2 of the cost-of-service schedules is the same, our testimony will describe the
3 common elements of the schedules, and indicate those few places where the
4 method of calculating the cost of service differs.

5 **III. REVENUE REQUIREMENT METHOD**

6 **Q. Please explain how the distribution revenue requirement is derived.**

7 A. The first step in developing a revenue requirement is to determine the costs
8 incurred to serve customers during the test year. In this case, the Companies'
9 distribution costs to serve are based on the booked financial records of the most
10 recently completed twelve-month period for which published financials are
11 available: the period from July 1, 2004 through June 30, 2005. Test-year costs
12 and revenues not related to distribution (e.g., costs and revenues relating to
13 transmission services, transition charges, Default ("Basic") Service, Standard
14 Offer Service, cost of gas and demand-side management programs ("DSM")) are
15 deducted. The test-year distribution costs are then adjusted for known and
16 measurable changes in accordance with the precedent of the Department. The
17 cost to serve, including operations and maintenance ("O&M") expenses,
18 depreciation and amortization, taxes and return on rate base are then compared to
19 adjusted test-year revenues to determine a revenue deficiency and corresponding
20 net additional revenue that each of the Companies is entitled to recover. This
21 approach is consistent with Department precedent and allows for revenues both to

1 recover reasonable costs of providing service and to earn a fair return on the
2 investment made to provide service to customers. It should be noted that the
3 format of the schedules provided as exhibits to this testimony, as described below,
4 has been designed to comport with and reconcile to the Companies' financial
5 books and records. Subsequent to the filing, the Companies will transfer the data
6 to the less-detailed schedules that are typically included in Department rate orders
7 and will submit those schedules to the Department.

8 **Q. How does this approach compare to the Companies' prior base rate case**
9 **filings?**

10 A. There have been significant changes in the structure of electric and gas companies
11 over the past ten-to-fifteen years. Industry restructuring has resulted in the
12 unbundling of services, which requires the Companies to calculate a distribution-
13 only revenue requirement. For example, the revenue requirements for the electric
14 companies are simpler in that they no longer own electric production facilities. In
15 addition, transmission facilities have been segregated functionally as required by
16 FERC Order 888. To arrive at the electric distribution revenue requirements, the
17 transmission assets and direct transmission expenses have been excluded. In
18 addition, shared plant and expenses that are allocated to the FERC Transmission
19 Cost of Service ("TCOS") have been excluded from the distribution revenue
20 requirement to avoid double recovery of costs. For example, the amounts of
21 general plant and administrative and general expense allocated to the TCOS have
22 been deducted from the distribution revenue requirement by calculating the

1 amount of these costs that would be allocated to the transmission function using
2 the allocators in the relevant transmission tariffs. Similarly, in order to calculate
3 the revenue deficiencies, transmission revenues have been excluded, and only
4 distribution revenues are shown. This allocation performs effectively the same
5 separation of costs as would occur if the distribution and the transmission entities
6 were separate entities. Also excluded from the calculation of the distribution
7 revenue requirement of both the gas and electric companies are the energy costs
8 and DSM costs recovered in the Basic Service, Standard Offer Service, Cost of
9 Gas Adjustment Clause (“CGAC”) and the DSM filings. Pension and post-
10 retirement costs other than pensions (“PBOP”) that are recoverable in the pension
11 adjustment mechanism (“PAM”) are also excluded. In summary, costs and
12 revenues relating to other rate mechanisms are excluded from the distribution
13 costs of service.

14 **Q. What period have the Companies used as the test year, and why?**

15 A. The Companies have used the year from July 1, 2004 to June 30, 2005 as their test
16 year. This period is the most recent 12-month period for which published
17 financial data are available.

18 **Q. What is the rate year as you use that term in this testimony?**

19 A. Department rate-case precedent often refers to the year following the date that
20 new rates go into effect. Our testimony will refer to that period as the “rate year.”
21 The Department typically suspends proposed new rates for the maximum six

1 months, and the tariffs in this case are filed for effect on December 1, 2005.
2 Consequently, we have assumed that new rates will go into effect on June 1,
3 2006, and the rate year will be for the period from June 1, 2006 through May 31,
4 2007.

5 **Q. Have the Companies followed Department precedent in preparing these**
6 **distribution revenue requirements?**

7 A. The Companies have made every effort to follow Department precedent.

8 **Q. Please describe the exhibits accompanying your testimony.**

9 A. In this filing, the Companies' revenue deficiencies are calculated in the following
10 exhibits. For ease of reference, we will refer to them as Exhibit NSTAR-CLV-2,
11 Exhibit NSTAR-CLV-3, etc. However, there are separate exhibits for each
12 distribution company. Each set of exhibits has a prefix indicating the appropriate
13 company.

14 • **Exhibit NSTAR-CLV-2** computes the **revenue deficiency** for each of the
15 Companies and includes pages itemizing O&M expenses, adjusted for
16 known and measurable changes, Depreciation and Amortization, Taxes
17 Other Than Income Taxes, Allowance for Income Taxes and the required
18 Return on Rate Base. The remaining exhibits provide support for these
19 overall cost-of-service exhibits.

- 1 • **Exhibit NSTAR-CLV-3** shows the **known and measurable changes** in
2 payroll, bad debts, rate case expenses, insurance and inflation. These
3 adjustments are carried forward to Exhibit NSTAR-CLV-2, page 3.

- 4 • **Exhibit NSTAR-CLV-4** computes the proposed adjustment for the test-
5 year **property tax** expense based on the most recent property tax bills.
6 Consistent with Department precedent, this adjustment to property taxes
7 will be updated during the proceeding to include additional tax bill
8 received. This updated amount includes tax abatements received during
9 the test year and is carried forward to page 5 of Exhibit NSTAR-CLV-2.

- 10 • **Exhibit NSTAR-CLV-5** calculates each of the Companies' **working**
11 **capital allowance** for use in determining the distribution rate base. This
12 amount is carried forward to page 7 of Exhibit NSTAR-CLV-2.

- 13 • **Exhibit NSTAR-CLV-6** shows the allocation of **accumulated deferred**
14 **income taxes** to either distribution or non-distribution functions. The total
15 distribution-related deferred taxes are brought forward to page 7 of Exhibit
16 NSTAR-CLV-2, on lines 17, 18 and 19 (and line 20 for NSTAR Gas).

- 17 • **Exhibit NSTAR-CLV-7** presents detail of **test-year revenues** by six-digit
18 FERC account and classifying each item according to either distribution or
19 non-distribution functions. Total distribution revenue is then carried
20 forward to page 8 of Exhibit NSTAR-CLV-2.

- 1 • **Exhibit NSTAR-CLV-8** shows the O&M detail for the electric
2 companies and provides a **reconciliation of the O&M** accounts on
3 Exhibit NSTAR-CLV-2, page 2 to each NSTAR Electric FERC Form 1
4 for June 2004, December 2004 and June 2005. There is no Exhibit
5 NSTAR-CLV-8 for NSTAR Gas because it doesn't file a FERC Form 1.

- 6 • **Exhibit NSTAR-CLV-9** details the **transmission allocators** for the
7 electric companies and provides the calculation of the allocation
8 percentages used in the filings.

- 9 • **Exhibit NSTAR-CLV-10** is the **balance sheet** items in the general ledger
10 as of June 30, 2005.

- 11 • **Exhibit NSTAR-CLV-11** is the **income statement** in the general ledger
12 for the test year from July 1, 2004 to June 30, 2005.

- 13 • **Exhibit NSTAR-CLV-12** is the breakdown of plant in service by detailed
14 plant account and the breakdown of accumulated depreciation by detailed
15 plant account as of June 30, 2005 (this breakdown is not available for
16 Boston Edison because depreciation is not calculated on an individual
17 plant account basis, as done for Cambridge, Commonwealth and NSTAR
18 Gas).

- 19 • **Exhibit NSTAR-CLV-13** is a copy of the latest transmission tariffs for
20 each electric company. For Boston Edison, the latest tariff was accepted

1 by FERC in Docket No. ER05-374-001, with an effective date of February
2 1, 2005. For Cambridge and Commonwealth, the latest tariffs were
3 accepted by FERC in Docket No. ER05-742-000, with an effective date of
4 June 1, 2005.

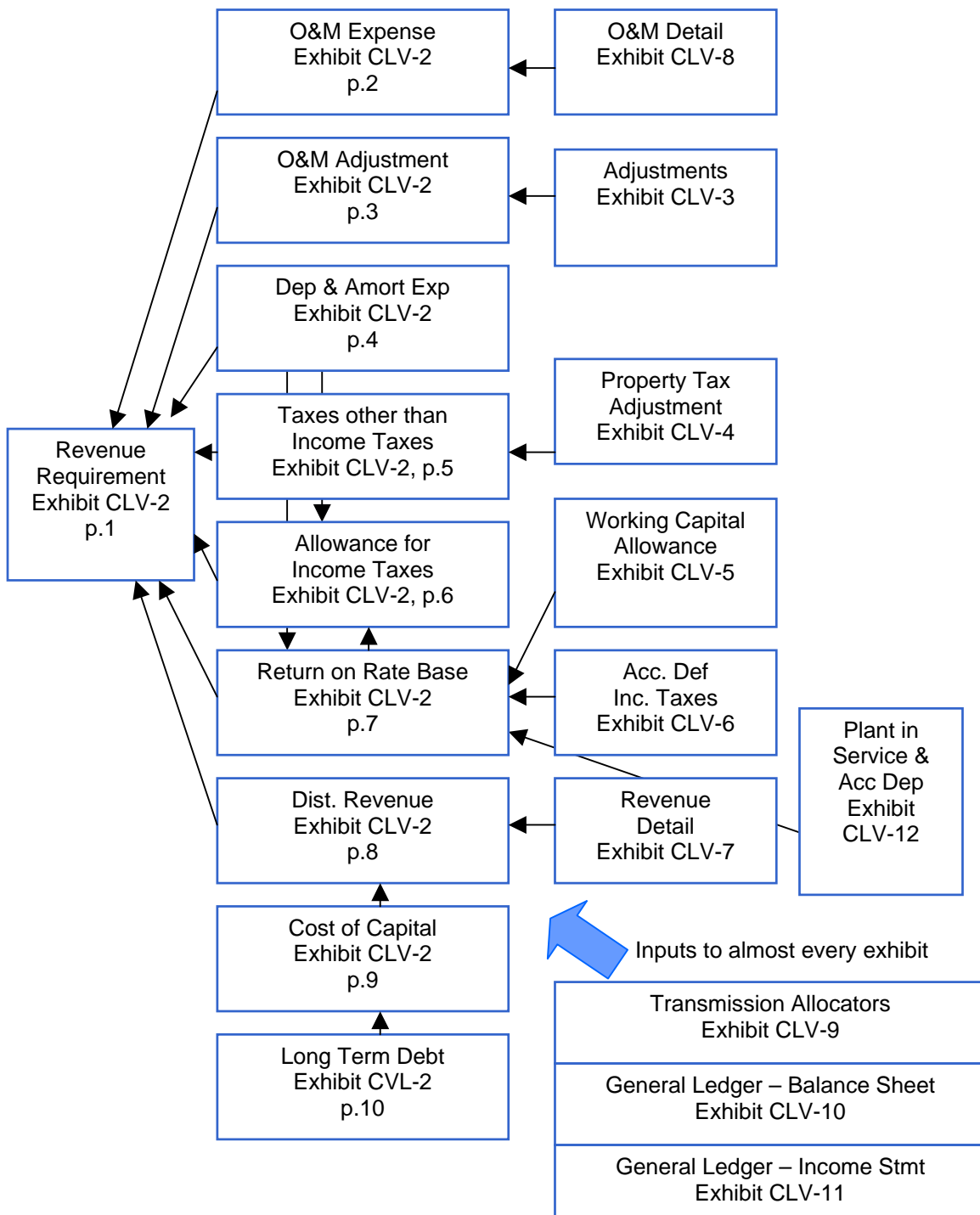
- 5 • **Exhibit GAS-CLV-13** is selected pages for the test year of the
6 Department Annual Returns for NSTAR Gas. The pages consist of plant
7 in service (pp. 17-18), revenues (p. 43), and operation and maintenance
8 expense (pp. 46-47).

- 9 • **Exhibit GAS-CLV-14** is a collection of NSTAR Gas advertising
10 produced and mailed to heating customers during the test year.

11 Figure 1, below, illustrates the major linkages and ties between the exhibits.

EXHIBIT NSTAR-CLV-1

Figure 1 : CLV Exhibit Links



1
2 **Q. Please generally describe each page of Exhibit NSTAR-CLV-2, the**
3 **calculation of each of the Companies' revenue deficiency.**

4 A. Exhibit NSTAR-CLV-2 is a ten-page exhibit that calculates the revenue
5 requirement and the revenue deficiency.

6 • Page 1, **Distribution Revenue Requirement**, summarizes the distribution
7 revenue requirement, distribution revenues and resulting distribution
8 revenue deficiency.

9 • Page 2, **Operations & Maintenance Expense**, calculates the distribution
10 cost of service by removing energy supply costs, DSM, and, in the case of
11 the electric companies, transmission and transition O&M.

12 • Page 3, **Operations & Maintenance Expense Adjustments**, shows
13 known and measurable changes to test year expenses, such as salary and
14 wage increases and inflation.

15 • Page 4, **Depreciation and Amortization Expense**, details the calculation
16 of depreciation and amortization expense based on the test-year-end
17 investments.

18 • Page 5, **Taxes Other than Income Taxes**, shows the detailed breakdown
19 of payroll and property taxes.

20 • Page 6, **Allowance for Income Taxes**, shows the calculation of the
21 allowable expense for income taxes for ratemaking purposes.

- 1 • Page 7, **Return on Rate Base**, shows the calculation of the allowed return
- 2 on rate base.
- 3 • Page 8, **Distribution Revenues**, shows the breakdown of operating
- 4 revenues by three-digit FERC account.
- 5 • Page 9, **Cost of Capital**, calculates the weighted average cost of capital.
- 6 • Page 10, **Cost of Long-Term Debt and Preferred Stock**, calculates the
- 7 weighted average cost of long-term debt and preferred stock used in the
- 8 calculation of the cost of capital, page 9.

9 **Q. Please describe in more detail, Exhibit NSTAR-CLV-2, page 1, Distribution**
10 **Revenue Requirement.**

11 A. Exhibit NSTAR-CLV-2, page 1 shows the overall distribution revenue
12 requirement and the revenue deficiency for each of the Companies. For each line,
13 the amount relating to distribution is shown in column B. References to
14 appropriate pages of Exhibit NSTAR-CLV-2 are shown in column C. The
15 revenue requirement is determined by adding the recoverable distribution O&M
16 expense, depreciation and amortization expense, taxes other than income taxes,
17 allowance for state and federal income taxes, and a return on rate base. The
18 distribution revenue requirement is compared to the test-year distribution
19 revenues, and the difference is the distribution revenue deficiency. Also shown is
20 the level of revenues that are being transferred between distribution rates and
21 other tariff mechanisms. For instance, for NSTAR Electric, the amount of bad

1 debt and cash working capital that is to be recovered in energy costs is shown
2 separately, so that if the Department were to require that such costs be included in
3 distribution rates, the additional deficiency is computed. Similarly, Boston
4 Edison shows an adjustment of \$35.4 million for the wholesale revenue credit that
5 is presently being collected in the transition charge. Although the total revenue
6 deficiency for Boston Edison is \$101.286 million, the elimination of the annual
7 recovery of \$35.4 in the transition charge reduces the net impact to customers to
8 \$65.886 million.

9 **IV. OPERATIONS AND MAINTENANCE EXPENSE**

10 **Q. Please explain Exhibit NSTAR-CLV-2, page 2 Operations & Maintenance**
11 **Expense, column C.**

12 A. Test-year O&M expenses are shown on Exhibit NSTAR-CLV-2, page 2.
13 Columns A and B list the FERC account number and account description,
14 respectively, as they appear on pages 321, 322, and 323 of the annual FERC Form
15 1 for NSTAR's electric subsidiaries and on pages 46 and 47 of the FERC Form 2
16 filed with the Department for NSTAR Gas. Column C contains the amount for
17 each account as would be shown on the FERC Form 1 for the electric companies
18 and the NSTAR Gas' Form 2 for filed with the Department. We say "would be
19 shown" because the test year is not a single calendar year, and the filings for
20 NSTAR Gas are done only on a calendar-year basis. In addition, although the
21 electric companies file FERC Form 1 on a quarterly basis, pages 324 and 325 of
22 those filings contain limited detail on certain O&M accounts, such as Customer

1 Accounts, Customer Service and Sales. The detailed data set forth on page 2 of
2 Exhibit NSTAR-CLV-2 (as well as other financial data filed in support of the
3 calculation of revenue requirement) have been taken from the Companies' general
4 ledgers, and, for the electric companies, the balances have also been reconciled to
5 the appropriate FERC Form 1 in the quarterly filings by taking the 2004 annual
6 balances, deducting the mid-year 2004 year to date balances and adding the mid-
7 year 2005 balances. This calculation for each of the electric companies is set
8 forth on Exhibit NSTAR-CLV-8.

9 **Q. Please explain Exhibit NSTAR-CLV-2, page 2, column D.**

10 A. Column D shows the amounts allocated to electric transmission rates. Since gas
11 transmission service is not provided by NSTAR Gas, the amounts in column D
12 are zero. In the case of the electric companies, the amounts allocated to
13 transmission are calculated using the allocators defined in the FERC transmission
14 tariffs. All the transmission O&M expenses are allocated to transmission with the
15 exception of accounts 565 "Transmission of Electricity by Others" and account
16 567 "Rents," where some transmission costs are recovered through the transition
17 charge. Transmission costs for remote generation units associated with purchase
18 power contracts, and costs relating to the DC portion of the Hydro Quebec line
19 are recovered through the transition charge and are therefore removed from the
20 distribution O&M in column E. Transmission Administration and General
21 expenses are recovered using the transmission labor allocator for most accounts.

1 Electric transmission costs relating to property insurance are recovered using the
2 fixed asset allocator; Regulatory Commission Expenses are recovered based on
3 direct assignment, and account 930 (excluding account 930.1 General Advertising
4 Expenses) uses a labor allocator. In addition, in the case of Cambridge, some
5 expenses that are accounted for as distribution O&M are allocated to the
6 transmission function because Cambridge's 13.8 kilovolt ("kV") plant was
7 categorized as transmission plant in 1996. The determination to classify
8 Cambridge's 13.8 kV facilities as transmission was reviewed and approved by the
9 Department in D.P.U./D.T.E. 97-93, at 11 (1998) as part of the FERC Order 888
10 classification of transmission plant.

11 **Q. Please explain Exhibit NSTAR-CLV-2, page 2, column E.**

12 A. Column E shows costs recovered in other Department-approved rates. It includes
13 costs of energy procured by the Companies for their customers (Basic Service and
14 the final eight months of Standard Offer Service for the electric companies and
15 the cost of gas recovered in the CGAC for NSTAR Gas). It also includes O&M
16 expenses that are recovered through separate, reconciling charges made in
17 conformance with the Companies' Renewables and Demand Side Management
18 tariffs and the PAM tariffs. The PAM adjustment leaves the same base amount in
19 the distribution cost of service set in D.T.E. 03-47, and recovers the difference
20 between that amount and the annual amount permitted under the annual
21 adjustment clause. This adjustment is included on line 62 (line 44 for NSTAR

1 Gas) of Exhibit NSTAR-CLV-2, page 2. NSTAR Gas is billed by Hopkinton
2 LNG for costs associated with operating and maintaining the liquefied natural gas
3 facility. It records these charges in account 808, Liquefied Natural Gas, and is
4 recovered through both its base rates and CGAC. The portion attributable to base
5 rates includes the demand charge, local taxes and administrative expenses
6 (Exhibit GAS-CLV-2, page 2, line 2, column G). The remaining costs in account
7 808 relate to the operation of the facility and are recovered through the CGAC.

8 **Q. How are the administrative and general (“A&G”) costs for services billed**
9 **under other tariffs, such as Basic Service and DSM, treated within Exhibit**
10 **NSTAR-CLV-2, page 2, column E?**

11 A. Neither the transition charge for NSTAR Electric nor the PAM tariff recovers
12 A&G costs, so no adjustment for A&G is necessary for these items. During the
13 test year, administrative costs and bad-debt costs relating to providing Basic
14 Service were recovered through base rates. However, effective July 1, 2005,
15 administrative and bad-debt costs associated with providing this service are
16 recovered from Basic Service customers under the Department-approved
17 settlement in D.T.E. 03-88. Consistent with the D.T.E. 03-88 settlement and
18 Department precedent, the NSTAR Electric proposes to assign to Basic Service
19 customers their pro-rata share of bad debt costs. This adjustment to test-year
20 expense is shown on Exhibit NSTAR-CLV-3, page 2, line 8 (also on Exhibit
21 CLV-2, page 1, line 10). It is derived by taking the test-year Basic Service
22 revenues and applying the three-year average rate of net write-offs to operating

1 revenues. This adjusts the level of O&M expenses to be recovered in base
2 distribution rates, which is then carried forward to Exhibit NSTAR-CLV-2, page
3 3, line 4. Like NSTAR Electric, NSTAR Gas, consistent with the rate unbundling
4 settlement approved by the Department in D.T.E. 98-63, proposes to continue to
5 assign to its Default Service customers through the CGAC their pro-rata share of
6 bad-debt costs via an identical adjustment to test year expense. This is shown in
7 Exhibit NSTAR-CLV-3, page 2, line 9, which. adjusts the level of O&M expenses
8 to be recovered in base distribution rates, and is then carried forward to Exhibit
9 NSTAR-CLV-2, page 3, line 4. A&G costs are included in the DSM tariffed
10 rates, but these costs are transferred to the DSM account 908050. Since the DSM-
11 related costs are excluded from the other O&M accounts on line 47 of Exhibit
12 NSTAR-CLV-2, page 2, no further adjustment is necessary as the costs are
13 already excluded from distribution.

14 **Q. What are the adjustments in Exhibit NSTAR-CLV-2, page 2, column F?**

15 A. The adjustments in column F are distribution costs that the Department has
16 determined should not be included in the calculation of the revenue requirement.
17 In general, these “disallowed” distribution costs are those where the Department
18 has determined that the distribution company has not provided sufficient proof
19 that the customer benefits from this cost expenditure. For example, certain
20 categories of promotional or advertising costs are not included in the calculation
21 of revenue requirement. There are no advertising expenses included in the cost of

1 service for NSTAR Electric. There is approximately \$0.104 million of
2 advertising expense included in the cost of service for NSTAR Gas in account
3 913. This advertising pertains to home-heating protection brochures, booklets and
4 letters for gas heating customers. Copies of these advertising efforts are included
5 as Exhibit GAS-CLV-14. Lobbying activities, dues and memberships, charitable
6 contributions, and fines or penalties have also been removed from the distribution
7 cost of service. Although some of the costs have been booked “below the line” to
8 accounts not included in the cost of service, some have been booked “above the
9 line”. If costs are booked above the line, they are included in column C and
10 removed in column F based on the Department precedent.

11 **Q. Please explain Exhibit NSTAR-CLV-2, page 3, Operations & Maintenance**
12 **Expense Adjustments.**

13 A. Exhibit NSTAR-CLV-2, page 3 shows adjustments to the test-year distribution
14 O&M (computed on page 2) to reflect known and measurable changes to the test
15 year amounts.

- 16 • Line 1 brings forward the test-year O&M expense from the last line of
17 page 2.
- 18 • Line 3, **Labor**, shows the adjustment to test-year wages and salaries for
19 known and measurable increases that will take place within six months
20 after new rates go into effect (prior to the middle of the rate year). The
21 adjustment is calculated on Exhibit NSTAR-CLV-3, page 1.

- 1 • Line 4, **Bad Debt Expense**, is the adjustment to test year bad-debt
2 expenses computed based on the three-year average rate of net
3 uncollectible write-offs as applied to the distribution revenues. The
4 adjustment is calculated on Exhibit NSTAR-CLV-3, page 2.

- 5 • Line 5, **Rate Case Expense**, is the adjustment to test-year expenses to
6 include the incremental expenses incurred for the rate case, normalized
7 over the average number of years between rate cases. The adjustment is
8 calculated on Exhibit NSTAR-CLV-3, page 3.

- 9 • Line 6, **Insurance Expense**, shows the adjustment to test-year insurance
10 expenses based on the most recent insurance costs. The adjustment is
11 calculated on Exhibit NSTAR-CLV-3, page 4.

- 12 • Line 7, **Inflation**, adjusts the test-year residual O&M expenses (that is, the
13 distribution O&M less items that are adjusted separately) for inflation.
14 Consistent with Department precedent, the inflation factor applies to the
15 time period between the middle of the test year and the middle of the rate
16 year. The inflation adjustment is calculated on Exhibit NSTAR-CLV-3,
17 page 5.

- 18 • Line 8, **Service Guarantee Fees**, adjusts for any test-year payments to
19 customers for failure to meet appointments or other service-related
20 “customer-guarantee” payments.

- 1 • Line 9, **Security, Safety and Quality Improvement Program**
2 ("SSQIP"), adjusts the test-year O&M expenses for known and
3 measurable increases for the Companies' SSQIP including stray voltage
4 inspection and remediation, removals of double poles, manhole inspection,
5 repair and upgrades. The level included on line 9 is the level above the
6 current costs and expenses that are included in the test year. This
7 adjustment is described in the testimony of Philip Andreas, Vice President
8 of Electric Operations for NSTAR (Exhibit NSTAR-PBA-1).

9 **Q. Please explain Exhibit NSTAR-CLV-3, page 1, Distribution Labor Increases.**

10 A. Exhibit NSTAR-CLV-3, page 1, computes the known and measurable changes to
11 the distribution labor expenses for union and non-union employees. In
12 accordance with Department precedent, the testimony of Mr. Peloquin (Exhibit
13 NSTAR-BBP-1) demonstrates that the overall compensation and benefits
14 expenses are reasonable, based on appropriate comparative analyses. Consistent
15 with that overall compensation package, the union wage increases set forth in
16 Exhibit NSTAR-CLV-3, page 1, represent known and measurable increases based
17 on signed contracts with the two unions that represent employees of the
18 Companies. Local 369 of the Utility Workers Union of America, AFL-CIO,
19 represents all union employees for the three electric companies and some
20 employees for NSTAR Gas. The remainder of the unionized employees of
21 NSTAR Gas are represented by Local 12004, United Steelworkers of America,

1 AFL-CIO. Wage increases are established under the terms of those contracts
2 (copies of which are included with Mr. Peloquin's testimony). Exhibit NSTAR-
3 CLV-3, page 1, column B (and column C for NSTAR Gas) computes the known
4 and measurable post-test-year expenses. Lines 3 through 7 annualize increases
5 that occurred during the test year. Lines 9 through 17 compute post-test-year
6 known and measurable increases that reflect the contractual pay rate increases that
7 will occur before the midpoint of the first year after new rates go into effect
8 (before the mid-point of the rate year).

9 **Q. Please explain how non-union wage increases are calculated.**

10 A. The non-union labor increase is calculated in identical fashion to that for the
11 union employees. Test year increases are annualized in lines 3 through 7 of
12 column C (column D for NSTAR Gas). Department precedent allows post-test
13 year increases that will occur within six months after the date that new rates go
14 into effect if it finds that there is an express commitment by management to grant
15 the increase and that there is an historical correlation between union and non-
16 union pay increases. As described by Mr. Peloquin, the Companies have a long-
17 standing policy of maintaining wage parity by increasing non-union wages at
18 levels comparable to increases received by unionized employees, and there is an
19 express commitment by management to grant the post-test-year increase.

1 **Q. Please explain Exhibit NSTAR-CLV-3, page 2, Bad Debt Adjustment.**

2 A. Page 2 computes the adjustment to test-year levels of bad debt. The historical
3 “experience rate” of bad debts is calculated based on the past three calendar years.
4 The experience rate is calculated by dividing the amount of net write-offs in the
5 year by total revenues (line 5, column D). The historical “experience rate” is then
6 multiplied by the test-year revenues, plus the deficiency (line 5, column B) to
7 determine the total bad-debt allowance (line 5, column C). This figure is then
8 compared to the test-year bad-debt expense. (line 6, column C), to determine the
9 total bad-debt adjustment (line 7, column C). There is no recovery of bad debts
10 for the DSM, PAM or the transition charge through the reconciliation
11 mechanisms, thus the bad debts for these items will continue to be included in the
12 distribution base rates. In accordance with Department precedent and the
13 settlement filed in D.T.E. 03-88 for the NSTAR Electric, bad debt amounts
14 attributable to costs for Basic Service will be collected in the Basic Service rates,
15 and are subtracted from the bad-debt adjustment (line 8, column C). Similarly,
16 consistent with the rate unbundling settlement approved by the Department in
17 D.T.E. 98-63, bad debt amounts for NSTAR Gas Default Service customers will
18 be collected in CGAC rates and have been removed from the bad-debt adjustment
19 in Exhibit NSTAR-CLV-3, page 2. Mr. LaMontagne’s testimony (Exhibit
20 NSTAR-HCL-1) describes the recovery mechanisms in those tariffs.

1 **Q. Please explain Exhibit NSTAR-CLV-3, page 3, Rate Case Expense**
2 **Adjustment.**

3 A. The normalized level of rate case expenses are calculated on Exhibit NSTAR-
4 CLV-3, page 3. The total rate case expense is allocated to each of the Companies
5 using the NSTAR Labor Allocator. In accordance with Department precedent,
6 the rate case costs are estimated and will be updated during the proceeding. The
7 updated costs are normalized by dividing the total by the average number of years
8 between rate cases. In keeping with past practices, actual rate case expenses will
9 be tracked as the case progresses and the cost estimates will be updated as needed
10 prior to the close of the record in this proceeding.

11 **Q. Did NSTAR engage outside services for this rate case?**

12 A. Yes. The Companies have engaged the services of outside consultants, attorneys
13 and witnesses for this rate case, and the associated merger and PBR proceedings.
14 These outside services include: preparing depreciation studies; determining the
15 cost of common equity, preparing marginal cost studies, developing a PBR plan
16 and performing legal, paralegal and administrative support.

17 **Q. Did the Companies use a competitive bidding process to procure these**
18 **services?**

19 A. The following services were competitively bid: Marginal Cost Study – awarded
20 to Navigant Consulting, Inc.; Cost of Capital Study – awarded to Moul &
21 Associates. The following services were not bid because the consultants involved
22 had significant prior experience with NSTAR and/or with the Department filings

1 and the Companies concluded that direct awards would not only be more
2 effective, but also less expensive. In this regard, the Companies consider that the
3 costs for these services compare favorably with other costs for similar services
4 that the Department has reviewed and approved in other recent cases: Legal –
5 awarded to Keegan Werlin LLP; PBR – awarded to Pacific Economics Group;
6 and Depreciation – awarded to Gannett Fleming.

7 **Q. Please explain Exhibit NSTAR-CLV-3, page 4, Insurance Adjustment.**

8 A. Exhibit NSTAR-CLV-3, page 4 computes the known and measurable adjustment
9 for insurance expenses. This adjustment is based on comparing the latest actual
10 bills received to the test year expense amounts. The test year expense is the actual
11 billed amount. The Companies will provide copies of the latest insurance
12 premium bills as they become available.

13 **Q. Please explain Exhibit NSTAR-CLV-3, page 5, Inflation Adjustment.**

14 A. Exhibit NSTAR-CLV-3, page 5 computes the inflation allowance, consistent with
15 Department precedent. The inflation adjustment permits an adjustment to test
16 year expenses not separately adjusted (the “residual O&M”) to account for
17 projected inflation from the mid-point of the test year to the midpoint of the year
18 following the effective date for the new rates. It is calculated on page 5 by
19 reducing test-year O&M expenses by those elements that are separately adjusted
20 (lines 1 through 7) and the residual O&M is increased based on the change in the
21 Consumer Price Index (“CPI”) from the middle of the test year to the middle of

1 the year following the rate change. The CPI indices (provided by Global Insight,
2 Inc.) are shown on lines 11 through 33. The inflation allowance is the product of
3 the inflation factor (line 8) and the residual O&M (line 7).

4 **Q. How are the O&M expense adjustments included in the calculation of**
5 **revenue requirement?**

6 A. The adjustments detailed on Exhibit NSTAR-CLV-3 are summarized on page 3
7 on Exhibit NSTAR-CLV-2. The total on Exhibit NSTAR-CLV-2, page 3, line 10
8 is carried forward to Exhibit NSTAR-CLV-2, page 1. Thus, the amount shown on
9 Exhibit NSTAR-CLV-2, page 1, line 1, column C is the test-year O&M expense,
10 adjusted for known and measurable changes.

11 **V. DEPRECIATION AND AMORTIZATION EXPENSE**

12 **Q. Please describe Exhibit NSTAR-CLV-2, page 4, Deprecation & Amortization**
13 **Expense.**

14 A. Exhibit NSTAR-CLV-2, page 4 is a calculation of the depreciation and
15 amortization expense. For depreciation, the Companies have used individual
16 accrual rates for each asset classification within the categories of intangible plant,
17 distribution plant, and general plant. This method is consistent with the method
18 previously applied by Cambridge and NSTAR Gas, as well as other electric and
19 gas utilities in Massachusetts. Boston Edison and Commonwealth had applied a
20 single rate each for Distribution and General plant. Utilizing separate rates for
21 each asset class results in depreciation rates that more accurately reflect the actual
22 expected useful life of each asset classification. The depreciation rates were taken

1 from the studies conducted by Gannett Fleming and described in Mr. Spanos'
2 testimony (Exhibit NSTAR-JJS-1). The year-end asset balances for distribution
3 and general plant are taken from the test year-end FERC Form 1 for each of the
4 electric companies and in the test year-end balance in the format of the FERC
5 Form 2 for the NSTAR Gas. These are shown in column C. For the NSTAR
6 Electric, the assets included in the transmission tariff are eliminated from the
7 distribution balance (NSTAR Gas has no FERC-regulated transmission tariffs).
8 This includes all transmission plant and a percentage of the general and intangible
9 plant depending on the labor allocator in the currently effective respective
10 transmission tariffs. Additionally, for Cambridge, the plant associated with
11 transmission (13.8 kV-related plant) is also eliminated. Specific references to the
12 FERC Form 1 are shown in column I for the electric companies. Depreciation for
13 each account is calculated by multiplying the asset balance in column E with the
14 applicable depreciation rate in column G. Existing depreciation rates are shown
15 in column F for reference. Finally, for comparison purposes only, the test-year
16 depreciation amounts are shown on the lines at the bottom of the page.

17 **Q. Please explain the items listed under the heading "Amortization".**

18 A. Each of the Companies includes the amortization of the goodwill and costs to
19 achieve relating to the merger of BEC Energy and Commonwealth Energy
20 System. Those amortizations are permitted by the Department as part of the rate
21 plan approved in D.T.E. 99-19. The total annual goodwill amount for the

1 Companies is \$12.252 million and the total annual cost to achieve is \$16.431
2 million. The recovery of these costs was approved by the Department in
3 D.T.E. 99-19 on July 27, and October 24, 1999, and allocated as described in the
4 reports filed with the Department on November 23, 1999 and July 6, 2000. In
5 accordance with that rate plan, the unamortized balances are not included in rate
6 base.

7 In addition, Boston Edison includes the continued amortization of costs relating to
8 distribution asbestos removal and certain distribution-related allowance for funds
9 used during construction (“AFUDC”). These amortizations arose out of a FERC
10 audit of the period from 1987 through 1990. The FERC determined that Boston
11 Edison should not have charged certain asbestos-removal costs as a “cost of
12 removal”, but rather should have charged the costs as O&M expenses, as
13 incurred. However, under a 1992 settlement agreement approved by the
14 Department in D.P.U. 92-92 (Section VII.A.), Boston Edison’s settled
15 Distribution depreciation rate began including these costs as a retail depreciation
16 expense. Thus, these amounts were allowed to be classified in account 182.3 for
17 FERC reporting purposes. Since these costs were included in account 108 under
18 the Department-approved settlement agreement, a reclassification is made each
19 year for purposes of the FERC Form 1. Also during the 1987-1990 audit, the
20 FERC determined that it did not agree with Boston Edison’s calculation of
21 AFUDC for 1987 and 1988. The FERC determined that Boston Edison had

1 recorded AFUDC in excess of what would be permitted under Electric Plant
2 Instruction No. 3. However, the Department approved the recovery of the
3 carrying charges that were in excess of that permitted by EPI No. 3(17).
4 Therefore, the additional carrying charges represent a created regulatory asset.
5 The amounts recorded under this audit are reclassified to account 182.3 for FERC
6 reporting purposes, but remain as a component of plant-in-service for Department
7 reporting purposes to reflect the retail regulatory and accounting treatment.

8 The net balances are includable in rate base as normal fixed assets.

9 **Q. Are there gains on the sale of utility property that are flowed back to**
10 **customers in these costs of services?**

11 A. For NSTAR Electric, gains on the sale of utility property are flowed back to
12 customers through the transition charge, so no gains are in the rate case. For
13 NSTAR Gas, a gain of \$891,443 was recorded on the sale of property located on
14 Samoset Street, Plymouth. Consistent with Department precedent, the gain on the
15 sale is flowed back to customers over six years (the time between rate cases). The
16 result is a reduction in the overall amortization expense. The amortization of the
17 gain is shown on Exhibit NSTAR-CLV-2, page 4, line 47 ($\$891,443 / 6 \text{ years} =$
18 $\$148,574$).

1 **VI. TAXES OTHER THAN INCOME TAXES**

2 **Q. Please explain Exhibit NSTAR-CLV-2, page 5.**

3 A. Exhibit NSTAR-CLV-2, page 5, calculates payroll taxes and property taxes. Per-
4 book payroll and property taxes are shown in column C. To adjust for known and
5 measurable changes, test-year payroll taxes are increased by the percentage
6 increase in labor expenses calculated on the last line of Exhibit NSTAR-CLV-3,
7 page 1, and are then multiplied by the payroll tax factor. The payroll tax factor is
8 a calculated percentage using actual test-year wages for each employee, adjusted
9 for known and measurable wage increases, and then multiplied by the rate year
10 tax rates and limits. This calculation takes into account both higher Social
11 Security payroll tax caps in the rate year, and the effect of employees earning
12 more, but that are still under the tax cap. Payroll taxes are also reduced by the
13 percentage of payroll taxes recovered in the transmission cost of service.

14 Per-book property taxes are shown in column C. Specific to Boston Edison, per-
15 book property taxes for the Town of Plymouth that are collected through the
16 transition charge are deducted. These are not allocated to the transmission
17 customers and are collected through the transition charge as approved by the
18 Department in D.T.E. 98-53, in accordance with a settlement with the Town of
19 Plymouth, and subsequent transition charge reconciliation cases. Property taxes
20 are adjusted for the latest property tax bills available in accordance with
21 precedent. This adjustment is detailed on Exhibit NSTAR-CLV-4, and will be

1 further adjusted as new property tax bills are received. Test-year abatements
2 reduce the property tax expense as follows: Boston Edison \$4,942.37;
3 Commonwealth \$16,932.73; Cambridge \$0.00; and NSTAR Gas \$85.32.
4 Updated property tax payments have been and will continue to be reduced for the
5 percentage of property tax expenses recovered in the transmission cost of service.
6 Payroll and property taxes are summed and carried forward to Exhibit NSTAR-
7 CLV-2, page 1 in the row labeled "taxes other than income taxes".

8 **VII. INCOME TAX ALLOWANCE**

9 **Q. Please explain Exhibit NSTAR-CLV-2, page 6.**

10 A. The income tax allowance is calculated on Exhibit NSTAR-CLV-2, page 6. The
11 revenue requirement includes an allowance for income taxes so that the
12 Companies' rates permit them to earn their allowed return on equity after taxes
13 are paid. Unlike many of the Companies' expenses, returns on common and
14 preferred equity and certain other expenses are not deductible for tax purposes,
15 which requires a revenue allowance for income taxes. These items include
16 amortizations of goodwill; the non-tax deductible portion of costs to achieve;
17 depreciation on basis differences; recovery of the deferred tax balances with the
18 settlement adjustments from D.P.U. 89-100 and D.P.U. 92-92 and the reverse
19 South Georgia; Average Rate Assumption Method ("ARAM") Excess Reserve
20 Amortization and Investment Tax Credit ("ITC") amortization net of ITC
21 amortization in the TCOS. The items that require a tax gross up are totaled on

1 line 8 and the gross up rate of 64.54 percent (as calculated on lines 15 thru 24) is
2 applied to determine the revenue requirement to needed for the required taxes as
3 shown on line 10. This tax allowance is adjusted for the amortization of the South
4 Georgia/Settlement adjustments and amortization of ITC (this item has not been
5 included elsewhere in the cost of service and only the tax impact is reflected in
6 line 12). The tax allowance net of this adjustment is shown on line 13 and carried
7 forward to page 1.

8 **Q. Please explain the Average Rate Assumption Methodology adjustments for**
9 **Cambridge and NSTAR Gas and the reverse South Georgia Adjustment in**
10 **Boston Edison.**

11 A. With the adoption of FAS 109, the Companies were required to calculate reserve
12 for accumulated deferred income taxes using the current tax rate. The difference
13 between the balance so calculated and the book balance became a regulatory asset
14 or liability at that time. The ARAM method was used to reverse the surplus
15 related to depreciation when the related detailed property tax records were
16 available, and the reverse South Georgia method was used when these detailed
17 records were not available. The objective is to reverse the surplus over the tax
18 depreciable lives of the related assets.

19 **Q. Why is there no excess reserves adjustment for Commonwealth?**

20 A. Commonwealth flowed back all its excess reserves several years ago, and no
21 further adjustment is needed.

1 **Q. Please explain the Settlement Agreement and South Georgia balances in**
2 **Boston Edison.**

3 A. In D.P.U. 92-92, Boston Edison was allowed to adjust its deferred tax balances to
4 achieve a set return on equity. The deferred balances thus created are being
5 amortized as part of the reverse South Georgia amortization calculation.

6 **Q. Please explain the ARAM Excess Reserve Amortization in Cambridge**
7 **Electric and NSTAR Gas.**

8 A. The reversal of the depreciation-related deferred income tax reserve surplus
9 relating to past changes in the Federal income tax rates is amortized under the
10 Average Rate Assumption Methodology. This computation reverses the tax
11 surplus over the depreciable life of the assets that gave rise to the surplus.

12 **Q. Please explain the income tax allowance calculation.**

13 A. The tax gross-up is calculated first by determining the statutory tax rate. Taxable
14 income on line 15 is subject to a State tax of 6.5 percent leaving 93.5 percent
15 subject to Federal taxes at 35 percent resulting in a net Federal tax rate of 32.725
16 percent (line 19). The Federal tax is added to the State tax to give a total effective
17 tax rate of 39.225 percent (line 21). The after-tax amount is what remains after
18 taxes being 60.775 percent as shown on line 23. The income tax allowance of
19 64.54 percent is calculated on line 24 by dividing the effective tax rate by the
20 after-tax amount. Thus, an expense that is not tax deductible requires an income
21 tax allowance of 64.54 percent so that the after-tax amount is 100 percent (164.54

1 multiplied by the tax rate 39.225 percent provides for a tax of 64.54 and leaves
2 100 percent of the recoverable expense).

3 **VIII. RATE BASE AND RETURN ON RATE BASE**

4 **Q. Please explain Exhibit NSTAR-CLV-2, page 7, Return on Rate Base.**

5 A. Rate base and the return on rate base is calculated on Exhibit NSTAR-CLV-2,
6 page 7. The rate base starts with the gross distribution utility plant in service
7 listed on Exhibit NSTAR-CLV-2, page 4. Capital Additions are discussed in the
8 testimony of Robert Martin (Exhibit NSTAR-RHM-1). The gross plant in service
9 is reduced by the test year-end accumulated depreciation on that plant in service.
10 As described below, rate base is further adjusted by adding cash working capital
11 and materials and supply inventories. Finally, rate base is reduced by deducting
12 certain construction advances and customer contributions, and accumulated
13 deferred income taxes. The total net distribution rate base is multiplied by the
14 weighted average cost of capital as computed on Exhibit NSTAR-CLV-2, page 9,
15 to compute the total return on rate base, which is carried forward to page 1, line 5.
16 The references are shown in column H.

17 **Q. How is net plant computed on Exhibit NSTAR-CLV-2, page 7, line 9?**

18 A. The test year asset balance on line 1 can be found on the depreciation schedule on
19 Exhibit NSTAR-CLV-2, page 4, line 43, column E as the total distribution-related
20 plant. The accumulated depreciation and amortization that is shown on lines 2
21 through 6 can be found on Exhibit CLV-12. A credit for the transmission

1 percentage of the accumulated depreciation is shown in column D and the
2 distribution balance is shown in column G. The accumulated amortization and
3 depreciation is totaled on line 7. The net distribution plant is shown on line 9
4 which is difference between the gross plant on line 1 and the accumulated
5 amortization and depreciation on line 7.

6 **Q. Please explain the fuel inventory for NSTAR Gas on line 10 of page 7.**

7 A. NSTAR Gas keeps gas in storage both in caverns and stored as liquefied natural
8 gas. The test-year-end cost of the fuel inventory is included in rate base.

9 **Q. Please explain the working capital adjustment line 11 of page 7.**

10 A. Working capital on line 10 is calculated in Exhibit NSTAR-CLV-5. The cash
11 working capital calculation utilizes the standard convention of 30 days for energy
12 and 45 days for non-energy O&M.

13 **Q. Why does the rate base include a working capital adjustment for power**
14 **purchases for NSTAR Electric?**

15 A. Consistent with Department precedent, NSTAR Electric has included a working
16 capital adjustment for power purchases in rate base. However, NSTAR Electric
17 proposes that working capital for power purchases be collected in rates for Basic
18 Service by calculating the working capital amount associated with power
19 purchases and multiplying that amount by the total cost of capital approved in this
20 case, grossed up for taxes on the equity return. Mr. LaMontagne's testimony

1 (Exhibit NSTAR-HCL-1) describes the recovery mechanisms in the Basic Service
2 tariffs.

3 **Q. Please explain the Materials and Supplies amount on CLV-2, page 7, line 12.**

4 A The investments in the inventory of Materials and Supplies are taken from the
5 FERC Form 1 for NSTAR Electric, and the amount in transmission is deducted.

6 **Q. Please explain the Unamortized Leased Equipment D&I costs on line 13.**

7 A NSTAR Gas leases gas equipment to home owners and the cost of this equipment
8 is included here. The revenues are included in the gas revenues.

9 **Q. Please explain the reduction of rate base to reflect uncashed checks on**
10 **Exhibit NSTAR-CLV-2, page 7, line 15.**

11 A. Rate base is reduced for uncashed checks the Companies have issued to customers
12 or suppliers. These represent free sources of cash to the Companies, and the
13 benefit of these free funds is flowed through to customers by crediting them
14 against rate base. In some past base rate cases, customer deposits have also been
15 applied as a credit to rate base; however, this is no longer appropriate since
16 customers receive interest on their deposits at rates established by the Department.

17 **Q. Please explain the rate base credit for contributions in aid of construction**
18 **Exhibit NSTAR-CLV-2, page 7, line 16.**

19 A. Rate base is reduced for the value of the contributions in aid of construction
20 (“CIAC”) consistent with Department precedent. This represents a free source of
21 cash because CIAC does not represent a cash outflow. The benefit of these funds
22 is flowed through to customers by crediting them against rate base.

1 **Q. Please explain the adjustments for accumulated deferred income taxes**
2 **Exhibit NSTAR-CLV-2, page 7, lines 17 through 20.**

3 A. Prepaid Income Taxes in account 190 are shown on line 17. For NSTAR Electric,
4 account 282, Accumulated Deferred Income Taxes – Other Property is shown on
5 line 18, and Accumulated Deferred Income Taxes – Other in account 283 is
6 shown on line 19. For the NSTAR Gas, accounts 265, 268 and 283 are shown on
7 lines 18 through 20. Non-distribution items in accounts 190, 282, and 283 have
8 been excluded from the distribution cost of service, leaving only distribution-
9 related deferred tax assets and liabilities to be included in rate base. Exhibit
10 NSTAR-CLV-6 is a detailed listing of deferred taxes items that shows the
11 determination between non-distribution and distribution amounts for purposes of
12 inclusion in each of the Companies' rate base. Amounts in column C are the per
13 book, June 30, 2005 amounts. Column D eliminates those items relating to
14 electric transmission. Column E excludes those items recovered under different
15 recovery clauses, including the transition charge for the electric companies and
16 the PAM-related deferred taxes are also significant items for all of the
17 Companies. Column F excludes other items where the related asset or liability is
18 not included in the rate base. The largest such items are cost to achieve and
19 goodwill associated with the merger of BEC Energy and Commonwealth Energy
20 System.

1 **IX. DISTRIBUTION REVENUES**

2 **Q. Please explain Exhibit NSTAR-CLV-2, page 8.**

3 A. Distribution revenues are shown on Exhibit NSTAR-CLV-2, page 8. Columns A
4 and B show the FERC account and account description, respectively. Amounts
5 from the FERC forms are shown in column C. At the bottom of the page for
6 NSTAR Electric, the revenues relating to the FERC Form 1 are determined by
7 taking the 2004 annual amount in column C, deducting the January-to-June 2004
8 total in column D and adding the January-to-June 2005 total in column E. The
9 amounts under the heading "12 months ended 6/30/05" are shown on the Lines 1
10 through 17 as the per books balance is shown in column C. Amounts in column
11 D show transmission-related revenues for the electric companies, which are
12 removed from the per-book amounts. Column E shows revenues removed that
13 relate to the transition charges (for the electric companies) energy supply, DSM
14 and PAM. Column F shows specific adjustments to distribution revenues such as
15 "Provisions for Rate Refunds". Column G shows the net distribution-related
16 revenues. The detailed sub-account-by-sub-account determination of each test-
17 year revenue item is detailed on Exhibit NSTAR-CLV-7.

18 **Q. Please explain Exhibit NSTAR-CLV-7.**

19 A. The revenue detail in Exhibit NSTAR-CLV-7 lists revenue accounts from each of
20 the Companies' general ledger. Sub-accounts of the FERC accounts are shown in
21 column A, and their description in column B. By showing operating revenues at

1 the sub-account level, it is possible to identify revenue that is not distribution
2 related (columns D, E and F), and that which is distribution revenue (column G).
3 Sub-accounts are totaled by FERC account and carried to Exhibit NSTAR-CLV-
4 2, page 8. As can be seen on the exhibit, in accounts 440 – 444, only distribution-
5 specific revenues are included. The other sub-accounts relate either to power
6 procurement, transition, transmission, or DSM charges.

7 **Q. Have the Companies proposed any adjustments to test-year revenues?**

8 A. Yes. The Companies have proposed five adjustments to test year revenues. The
9 first is a revenue adjustment for NSTAR Gas for weather normalization on
10 Exhibit CLV-2, page 8, line 19. This adjustment is discussed in Mr.
11 LaMontagne's testimony. The second adjustment for NSTAR Gas is the
12 amortization of the entitlement to the gain on the sale of the Research Park parcel
13 in the City of Cambridge. The third is an adjustment for miscellaneous non-utility
14 revenues in account 417, which relate to services related to the Companies' core
15 business provided to other companies such as engineering for electrical
16 connections, wireless communication revenues, and property management and
17 development revenues.. These revenues are credited to the cost of service on line
18 20. The fourth adjustment is for streetlight revenues for Cambridge on line 4. As
19 provided for in the Restructuring Act, several cities and towns have purchased
20 their streetlights during the test year, which has resulted in lower distribution
21 revenues to the electric companies. For Cambridge, this adjustment was

1 necessary to annualize the impact of lower streetlight distribution revenues in the
2 future. The fifth adjustment that decreases the deficiency is a pro forma
3 adjustment relating to the schedule of new service fees proposed by the
4 Companies. If approved, it would increase the amount of distribution revenues
5 recovered. The total of these distribution revenues and credits are shown on line
6 23 and carried forward to page 1.

7 **X. CAPITAL STRUCTURE**

8 **Q. Please explain Exhibit NSTAR-CLV-2, page 9, Cost of Capital.**

9 A. Exhibit NSTAR-CLV-2, page 9 calculates the cost of capital. Each of the
10 Companies' actual capital structure is shown on lines 1 through 4, column B. The
11 percent of capital set forth in column C is the share of debt, preferred and equity
12 that is being applied for purposes of computing the weighted average cost of
13 capital. The actual debt-equity ratios for NSTAR Gas, Cambridge and
14 Commonwealth deviate significantly from standard utility practice, and therefore,
15 the Companies propose that the impute a capital structure of 50 percent debt and
16 50 percent equity for ratemaking purposes. A capital structure of 50 percent
17 equity is consistent with the capital structure of approved in pre-merger litigated
18 general rate cases of Cambridge (49.89 percent equity in D.P.U. 92-250),
19 Commonwealth (49.89 percent equity in D.P.U. 89-114/90-331/91-80) and
20 NSTAR Gas f/n/a Commonwealth Gas Company (51.093 percent equity in
21 D.P.U. 87-122). The Boston Edison capital structure is the test year-end amounts

1 adjusted for known and measurable changes. The cost of long-term debt and
2 equity are shown on column D. The cost of long-term debt is the actual weighted
3 average cost of debt set forth in Exhibit NSTAR-CLV-2, page 10. The cost of
4 common equity is the return determined by Mr. Moul (Exhibits NSTAR Electric-
5 PRM-1 and NSTAR Gas-PRM-1). The weighted average cost of capital is
6 computed in column E by multiplying column C by column D. The total
7 weighted average rate of return is shown on line 4.

8 **Q. Please explain Exhibit NSTAR-CLV-2, page 10.**

9 A. The cost of each of the Companies' long-term debt and preferred stock is
10 calculated on page 10 by taking the outstanding amount and adjusting it for the
11 unamortized premiums or expenses associated with the debt. The cost of the debt
12 is calculated by adjusting the interest on the outstanding debt by the amortization
13 of the premiums or expenses associated with the debt. Debt issues that are called
14 or come due prior to one year before the middle of the year after the new rates
15 become effective are excluded. In the case of Commonwealth's and Boston
16 Edison's variable rates, the Company has determined the average of the actual
17 London Inter-Bank Offer Rate (the interest rate that the banks charge each other
18 for loans), to which it then added the 50 basis points to set the cost of the newest
19 issue. To the extent possible, the Companies will update this number during the
20 course of these proceedings.

XI. TRANSMISSION ALLOCATIONS

Q. Please explain Exhibit NSTAR-CLV-9.

A. Exhibit NSTAR-CLV-9 shows the calculation of the transmission allocators used in NSTAR electric's cost of service. These calculations follow the formulas prescribed in the transmission tariffs, which are included as Exhibit NSTAR-CLV-12. The plant allocator is shown on page 1, line 11. It is derived by dividing total plant relating to transmission and by the total plant in service. Plant relating to transmission includes transmission plant, a portion of transmission and general plant, and in the case of Cambridge, the 13.8 kV portion of the distribution plant that serves a transmission function. The tariffs specify a similar calculation for both the Scheduling and Dispatch (Schedule 1) and for the regular cost of service (Schedule 21). Since the effect of these two calculations is additive, they are combined in Exhibit NSTAR-CLV-9. The transmission plant and subsequent plant allocator therefore includes the scheduling and dispatch components.

The labor allocator is calculated on Exhibit NSTAR-CLV-9, page 1, line 16. Wages and salaries allocated to transmission are divided by total wages and salaries, net of administrative and general expenses. The wages and salaries allocated to transmission have been calculated for the test year and are drawn from an analysis of labor expenses shown on Exhibit NSTAR-CLV-9, page 2, line 69, column F. For Cambridge, this includes a portion of the operation and

1 maintenance accounts for distribution. For all companies, wages and salaries
2 associated with scheduling and dispatch have been included in these totals.

3 The bottom of Exhibit NSTAR-CLV-9, page 1 shows a description of the
4 allocation of amount to transmission for the 565 subaccounts. The transmission
5 tariff for each 565 subaccount is separately identified.

6 Exhibit NSTAR-CLV-9, pages 2 and 3 further examines the test year labor values
7 and allocates the labor to both management and union. This is used in the labor
8 adjustment on Exhibit NSTAR-CLV-3, page 1.

9 For Cambridge, Exhibit NSTAR-CLV-9, page 4 additionally shows the
10 calculation of the transmission allocators relating to Cambridge's 13.8 kV
11 distribution plant. The second calculation shows the accumulated depreciation
12 associated with 13.8 kV transmission plant.

13 **XII. STORM FUND**

14 **Q. Is the calculation of revenue requirement effected by the existence of the**
15 **Boston Edison storm fund established in accordance with the terms of the**
16 **Restructuring Settlement approved by the Department in D.P.U./D.T.E. 96-**
17 **23?**

18 **A.** No. The Boston Edison storm fund established a storm reserve fund of \$8 million
19 in accordance with the terms of the Restructuring Settlement. The funds were set
20 aside to pay the incremental O&M costs associated with a major storm and was
21 funded with \$8 million of proceeds received through the sale of Clean Air Act
22 Emission Allowances. D.P.U./D.T.E. 96-23, at 68. In the event that the

1 incremental costs to Boston Edison resulting from a storm exceeds \$1 million,
2 Boston Edison may use the storm fund to pay the incremental expenses and then
3 replenish the storm fund up to a maximum of \$3 million per year. Because there
4 were no major storms in the test year, there was no contribution made and there
5 are no expenses that would have an impact on the calculation of Boston Edison's
6 revenue deficiency.

7 **Q. Is NSTAR Electric proposing any changes in the Boston Edison storm fund?**

8 A. Yes. In view of the proposed merger of Boston Edison, Cambridge and
9 Commonwealth to create a single electric company and normal inflationary
10 impacts that could result in higher storm costs, NSTAR Electric proposes to
11 increase the fund level from \$8 million to \$15 million. Again, this increased
12 funding can be accomplished by using emission credits that have been sold, thus
13 avoiding any impact on the revenue deficiency. NSTAR Electric requests
14 Department approval of this proposal.

15 **Q. Does this conclude your testimony?**

16 A. Yes.